



City Commission Work Session

Agenda

April 27, 2023 @ 1:00 pm

City Hall - Commission Chambers
401 S. Park Avenue

welcome

Agendas and all backup material supporting each agenda item are accessible via the city's website at cityofwinterpark.org/bpm and include virtual meeting instructions.

assistance & appeals

Persons with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk's Office ([407-599-3277](tel:407-599-3277)) at least 48 hours in advance of the meeting.

"If a person decides to appeal any decision made by the Board with respect to any matter considered at this hearing, a record of the proceedings is needed to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based." (F.S. 286.0105).

please note

Times are projected and subject to change.

-
1. **Call to Order**
 2. **Discussion Item(s)**
 - a. [Transportation Master Plan Update 2 by Patel, Greene & Associates](#) 90 minutes
 3. **Adjournment**



City Commission **agenda item**

item type Discussion Item(s)	meeting date April 27, 2023
prepared by Hongmyung Lim	approved by Michelle del Valle, Randy Knight
board approval Completed	
strategic objective	

subject

Transportation Master Plan Update 2 by Patel, Greene & Associates

motion / recommendation

background

alternatives / other considerations

fiscal impact

ATTACHMENTS:

[WinterParkTMP_Presentation2_draft_v3.pptx](#)



City of Winter Park Transportation Master Plan

Greenways & Technology Projects
April 2023

| Today's Presentation

Baseline analysis recap & updates

Confirm metrics/prioritization criteria

New projects concepts:

- Greenways
- Technology



Updated April 2023

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TASKS

5b. Final Plan Document

[illegible]

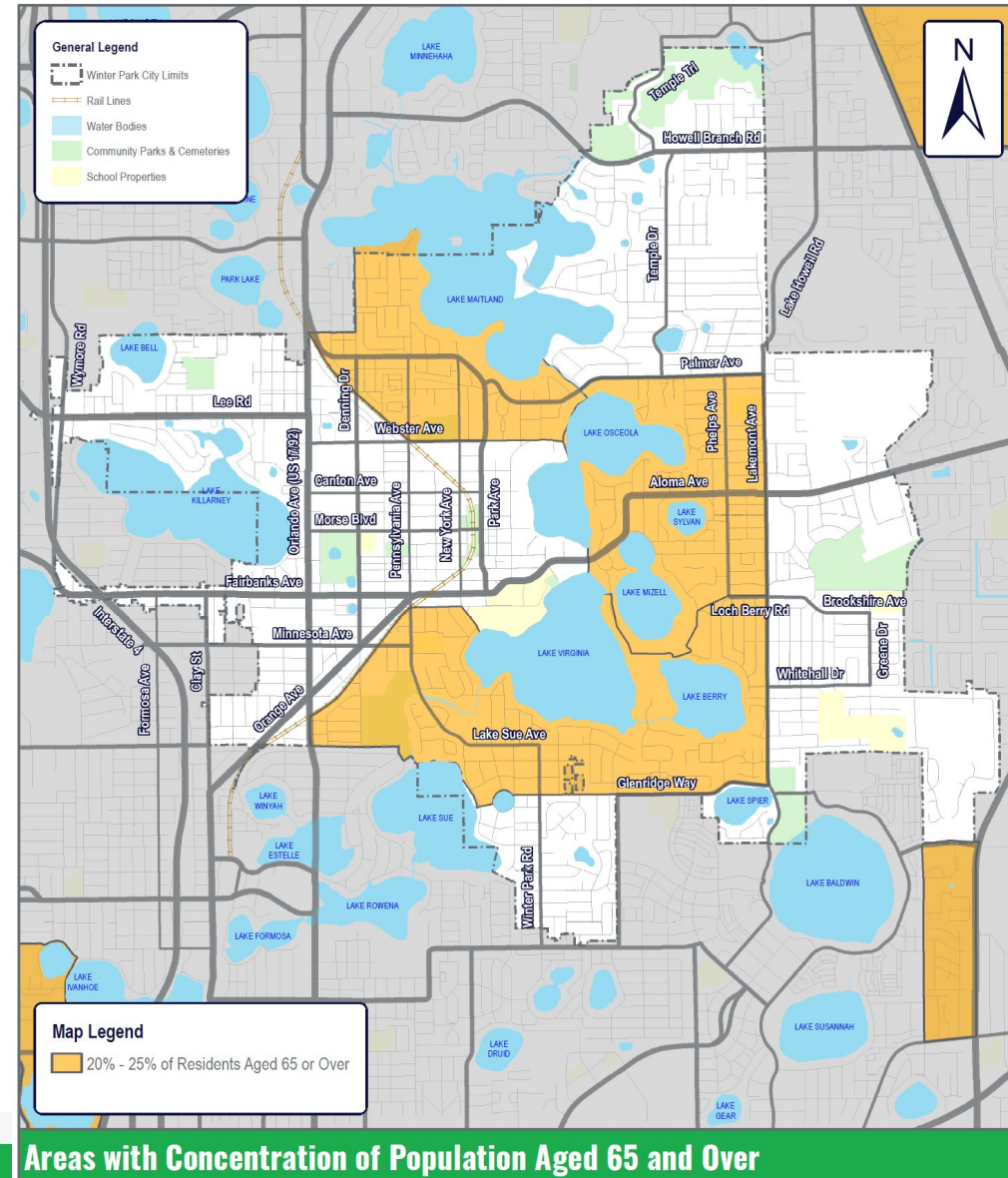
City Commission

1st Presentation Recap – Baseline & Analysis

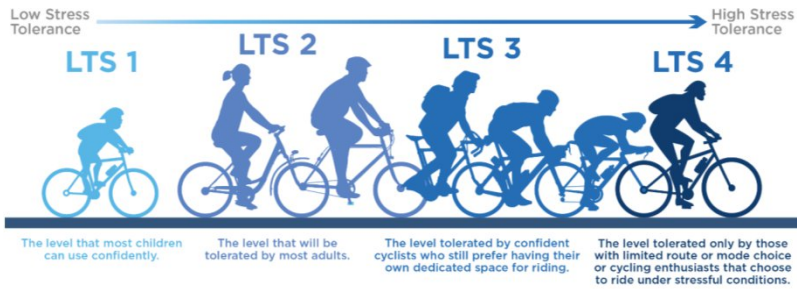
Discussion Thus Far

- Consider elderly people and future demographics.
- Connect destinations like parks, schools, and Sun Rail.
- Plan for technologies such as electric and connected vehicles.
- Provide tools to address traffic speed and cut-through traffic.
- Transportation Master Plan will provide high-level list of prioritized projects with cost estimates and an expanded design toolbox, but not detailed design alternatives for individual locations.

Main Themes: Pedestrians, Bicyclists & Technology



Bicycle Level of Traffic Stress

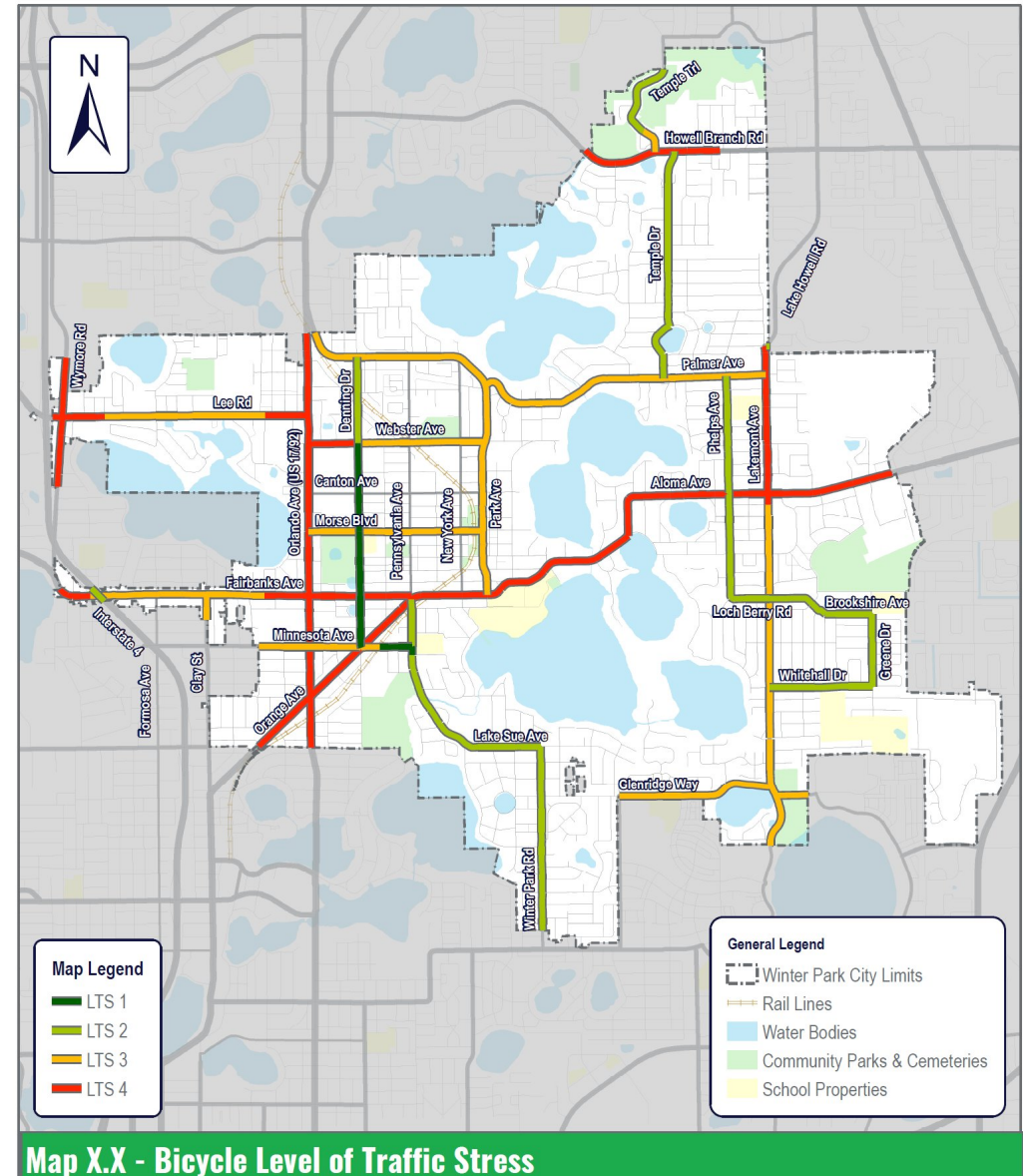


Calibrated the FDOT LTS analysis to Winter Park:

- Posted Speed Limit
- Number of travel lanes
- Volume of motor vehicles
- Land use commercial or residential
- Width of pathway or bike lane

In general, more separation from traffic is preferred for bicycle facilities.

In general, low speed and low traffic streets are preferred when there is not a dedicated bicycle facility.



Metrics > Prioritization

Pedestrian & Bicyclist - Network Connectivity

- Access to key destinations: parks, schools, SunRail
- Pedestrian Latent Demand
- Level of Traffic Stress for pedestrians and bicyclists
- Pedestrian and bicyclist crashes
- Concentration of people aged 65 and over

Traffic - Travel Time Reliability

- Motor vehicle crashes
- Motor vehicle traffic volumes
- Motor vehicle traffic level of service
- Technology strategic investments



Projects Identified Previously

Roadway

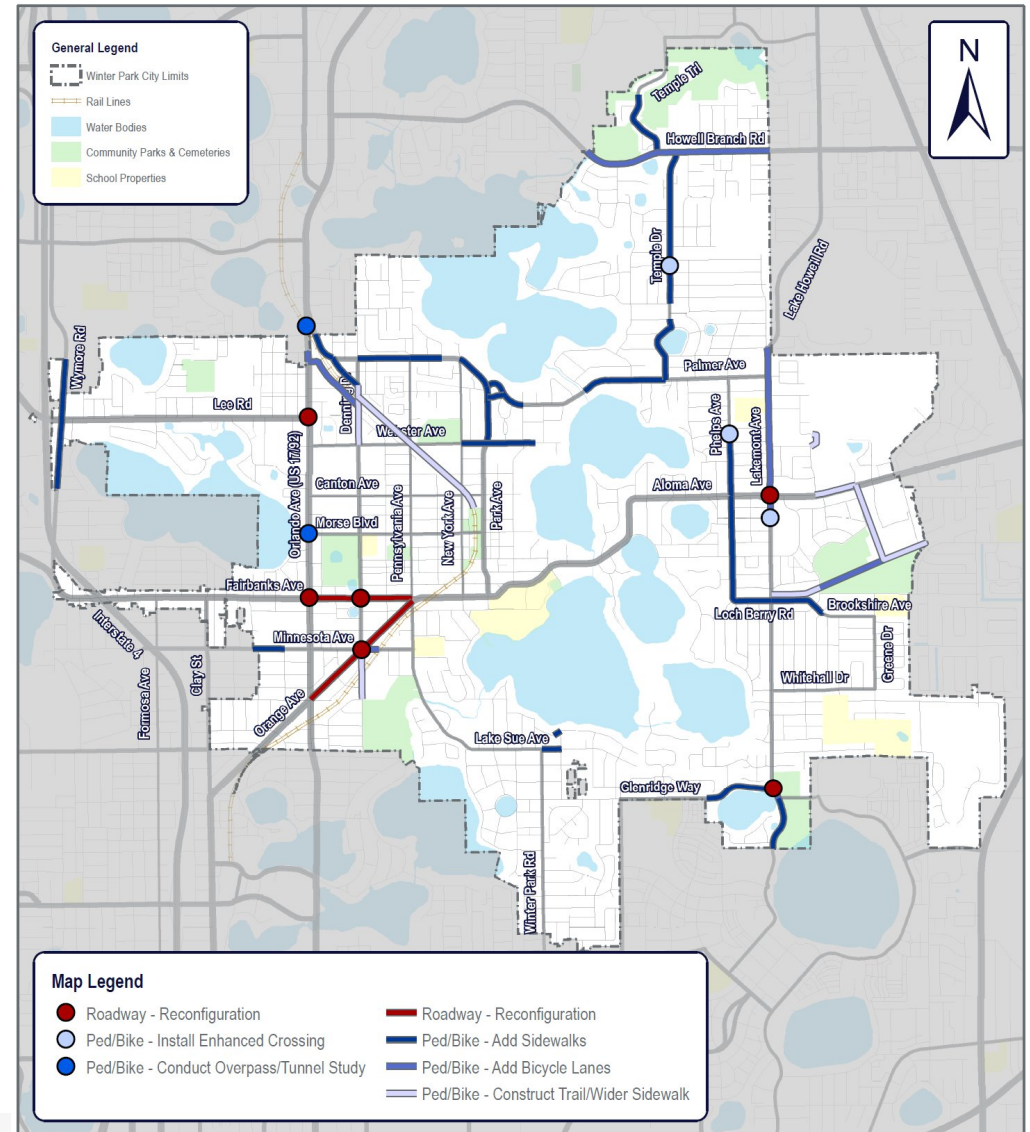
- Corridor reconfiguration studies
- Intersection capacity

Pedestrian & bicycle

- Sidewalks
- Bike lanes
- Trail/wider sidewalk
- Crossings/Signals

New projects concepts

- Greenways
- Technology



Pedestrian, Bicycle & Roadway Projects

| Greenways

Safe crossings

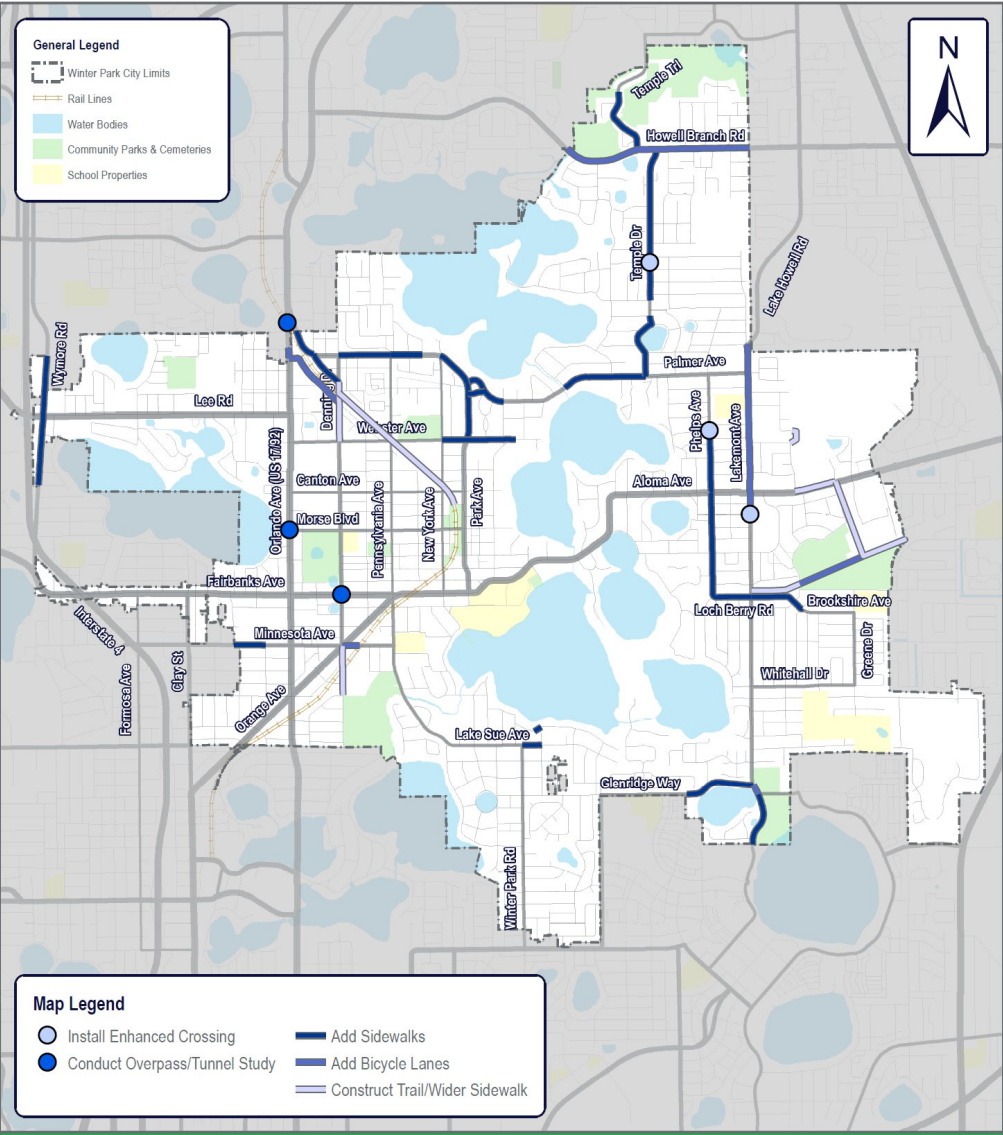
Connect key destinations

Destination-oriented wayfinding

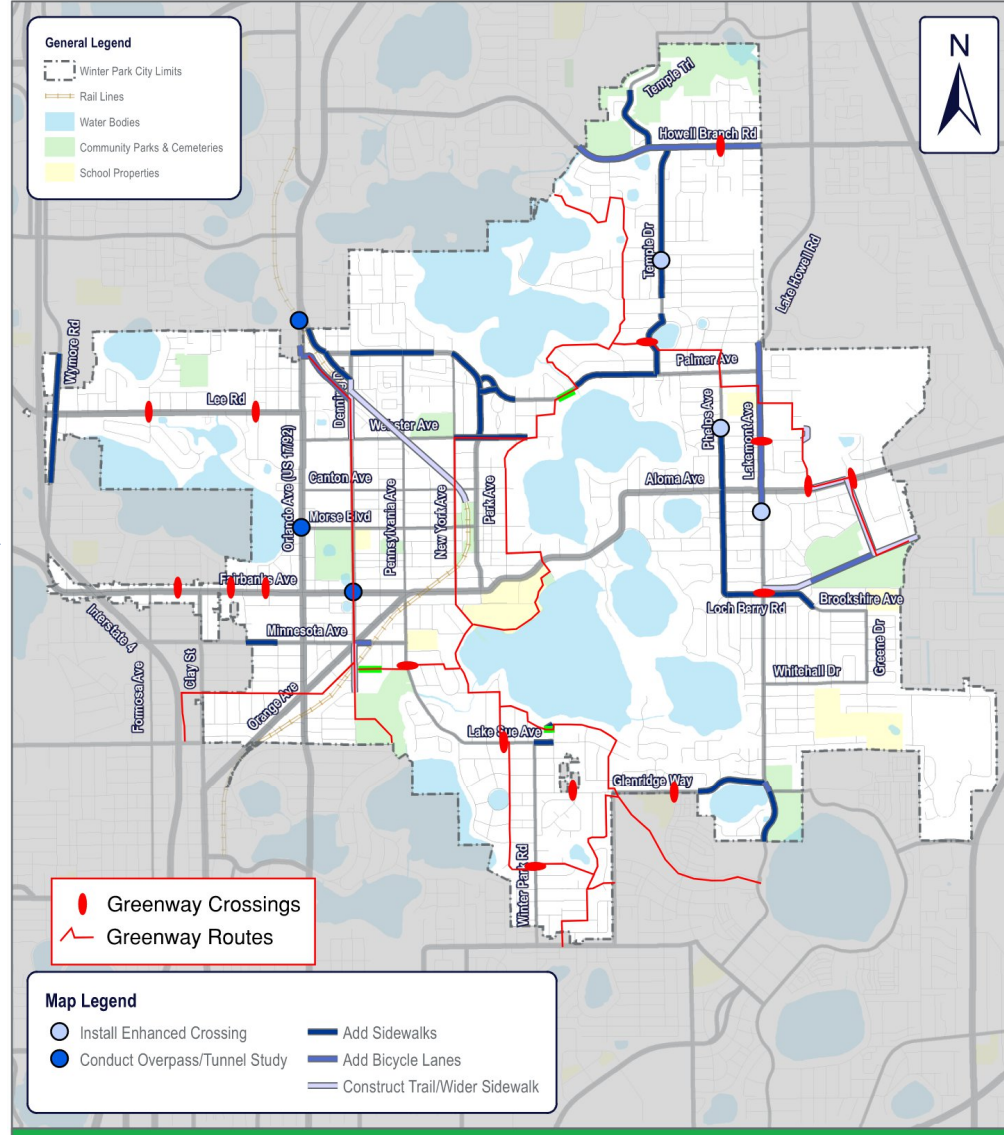
Route identification & amenities



Lane re-allocation to install buffered bike lanes & enhanced crossing as part of resurfacing project in St. Petersburg, FL - Dr. MLK Jr. Street at 13th Avenue N



Pedestrian & Bicycle Projects



Pedestrian & Bicycle Projects Greenways Network Concept

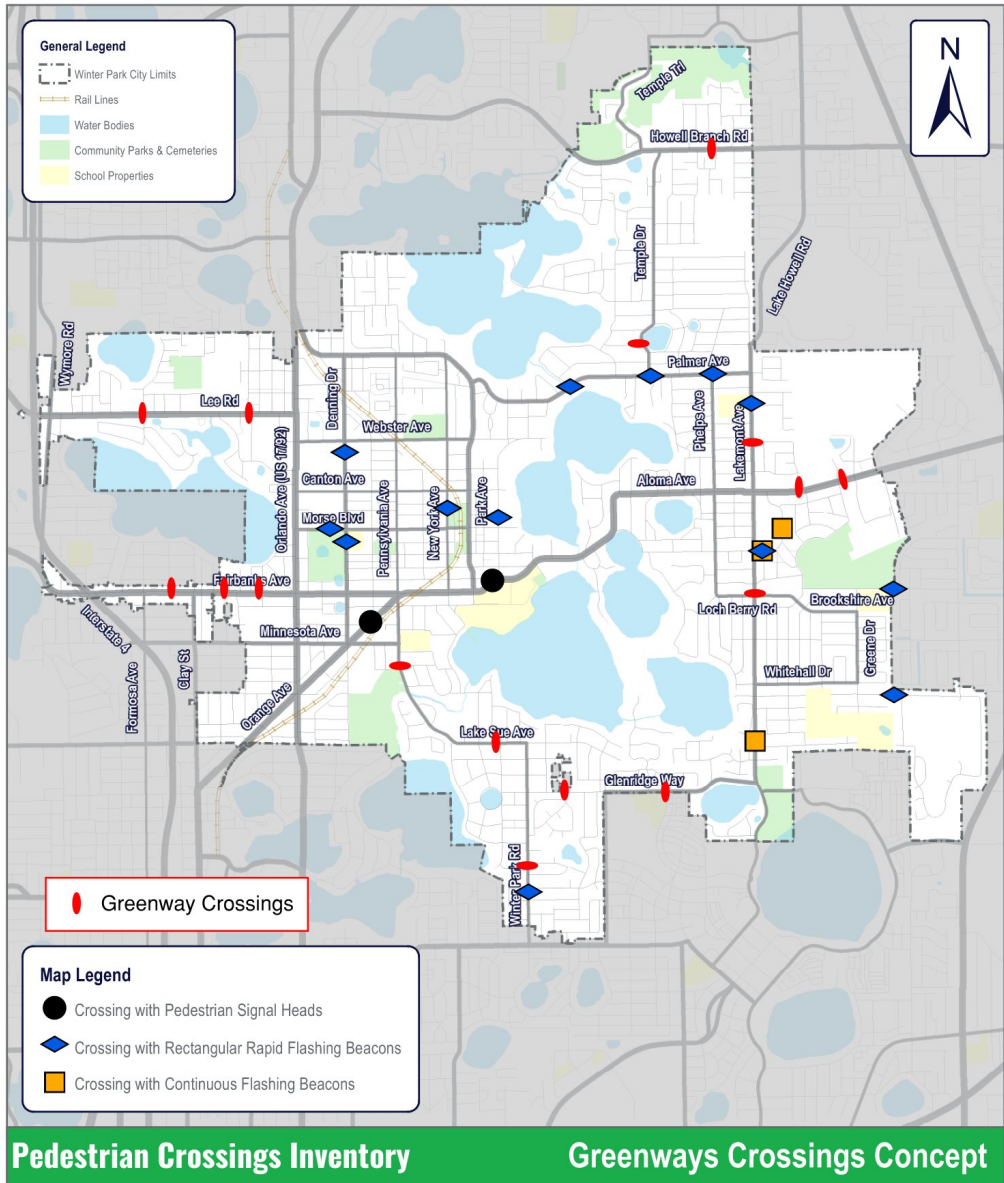
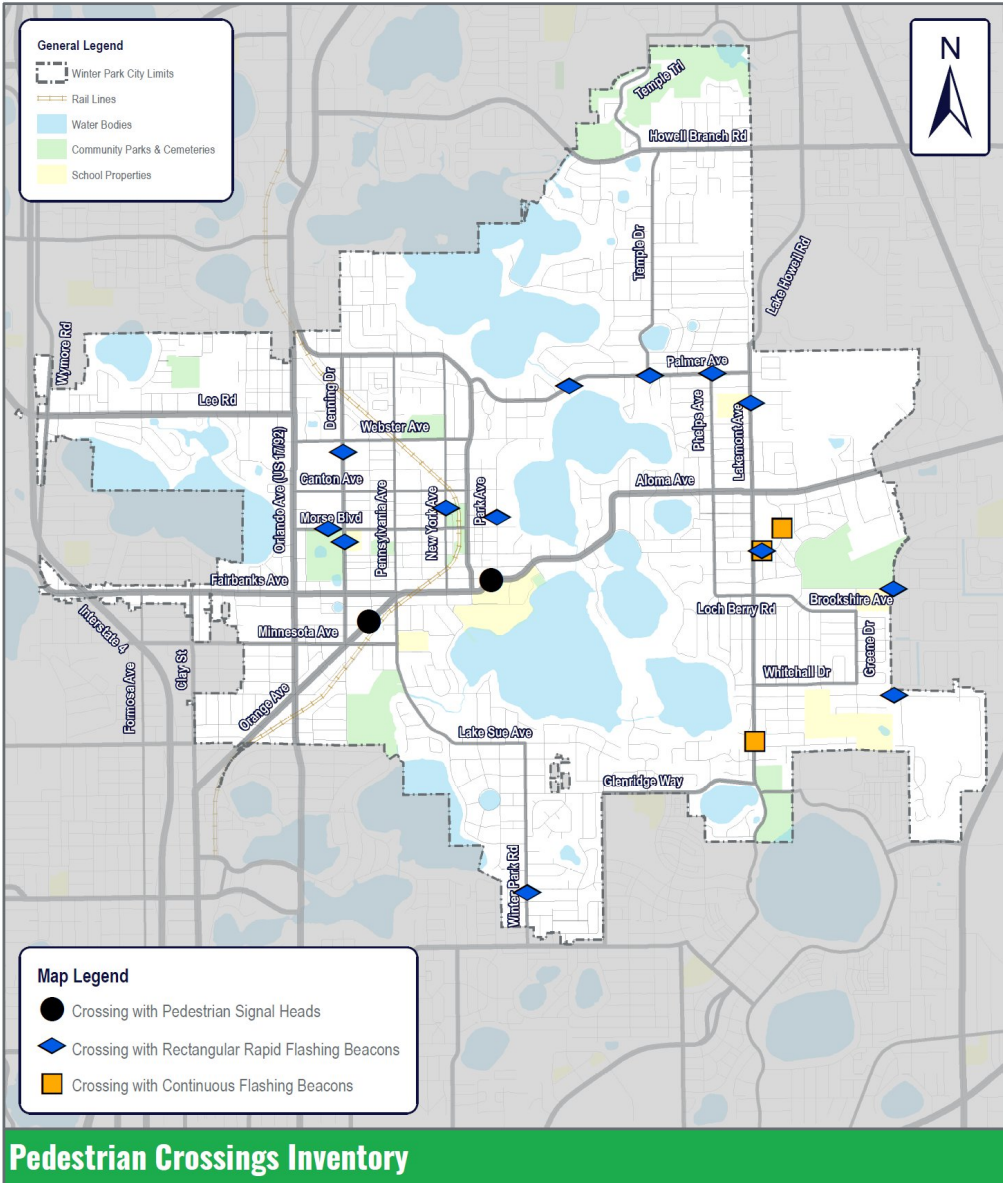
Greenways – Both Bicyclists & Pedestrians

Enhance traffic calming efforts

Decrease distance between crossings

Shade, comfort, and aesthetics

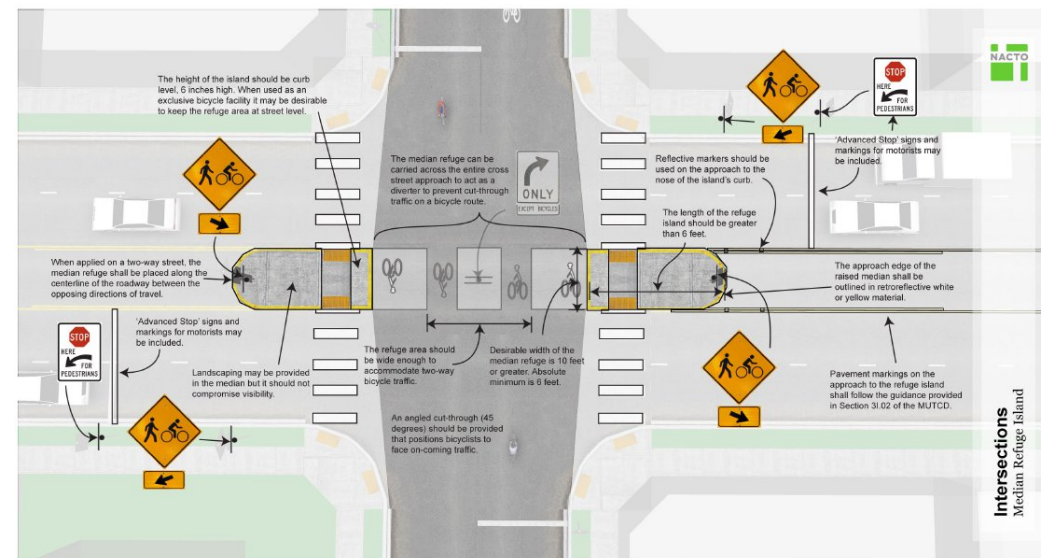




| Greenway Crossings - Build on Existing Success



Greenway Crossings Expanded Toolbox

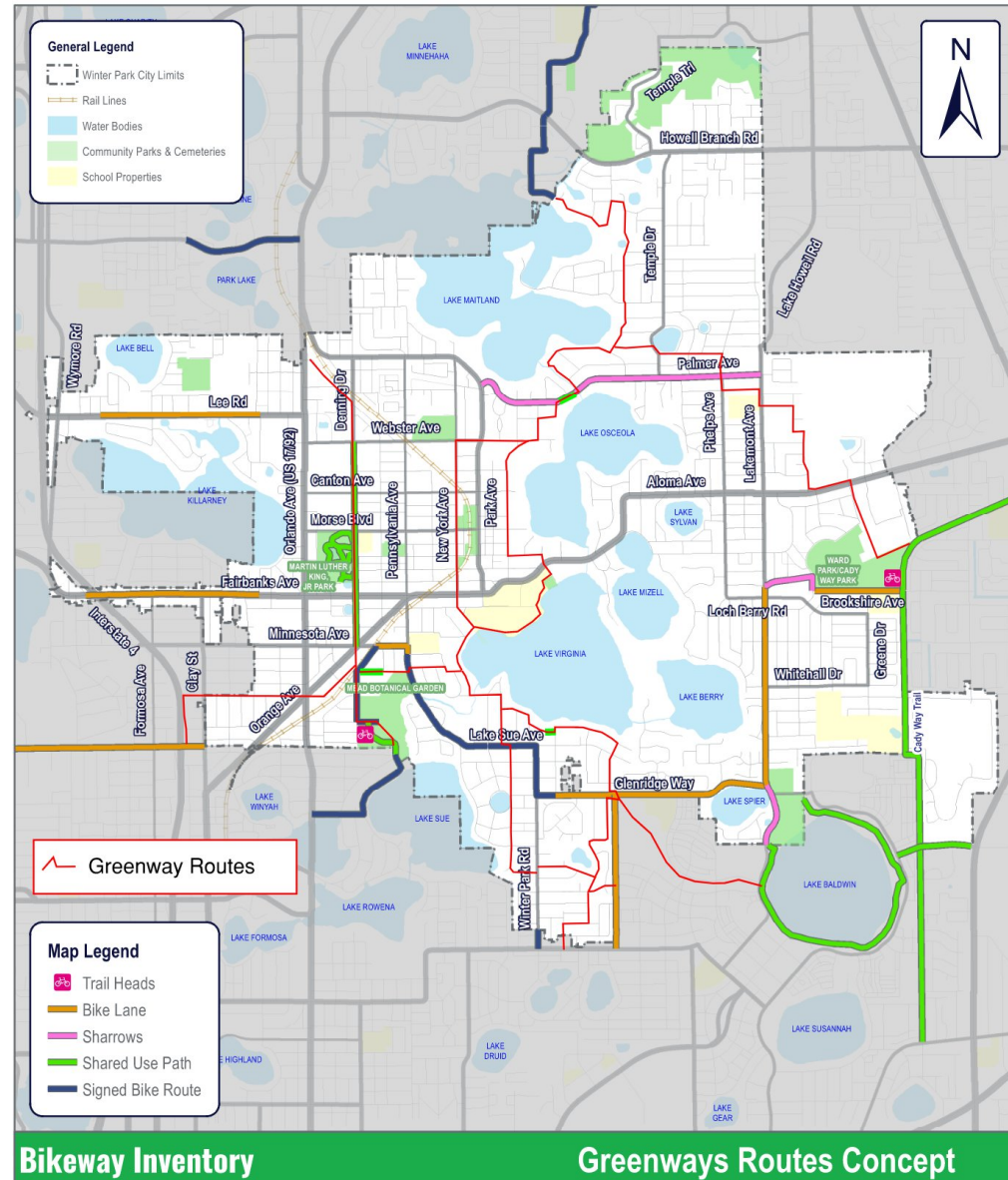
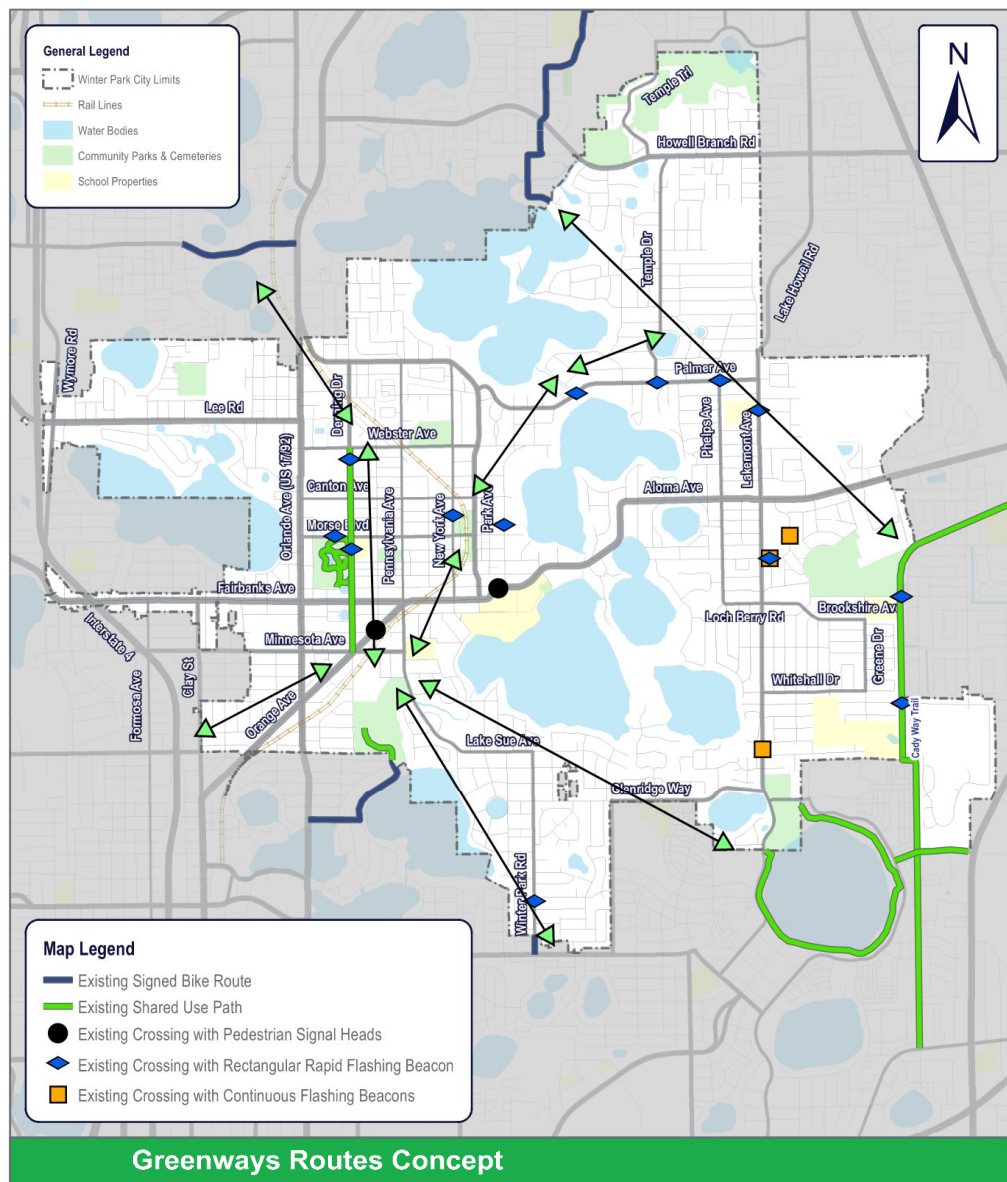


View a high resolution image here: http://nacto.org/wp-content/uploads/2010/08/MedianRefugeIsland_Diverter_Annotated.jpg



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Greenways – Route Selection



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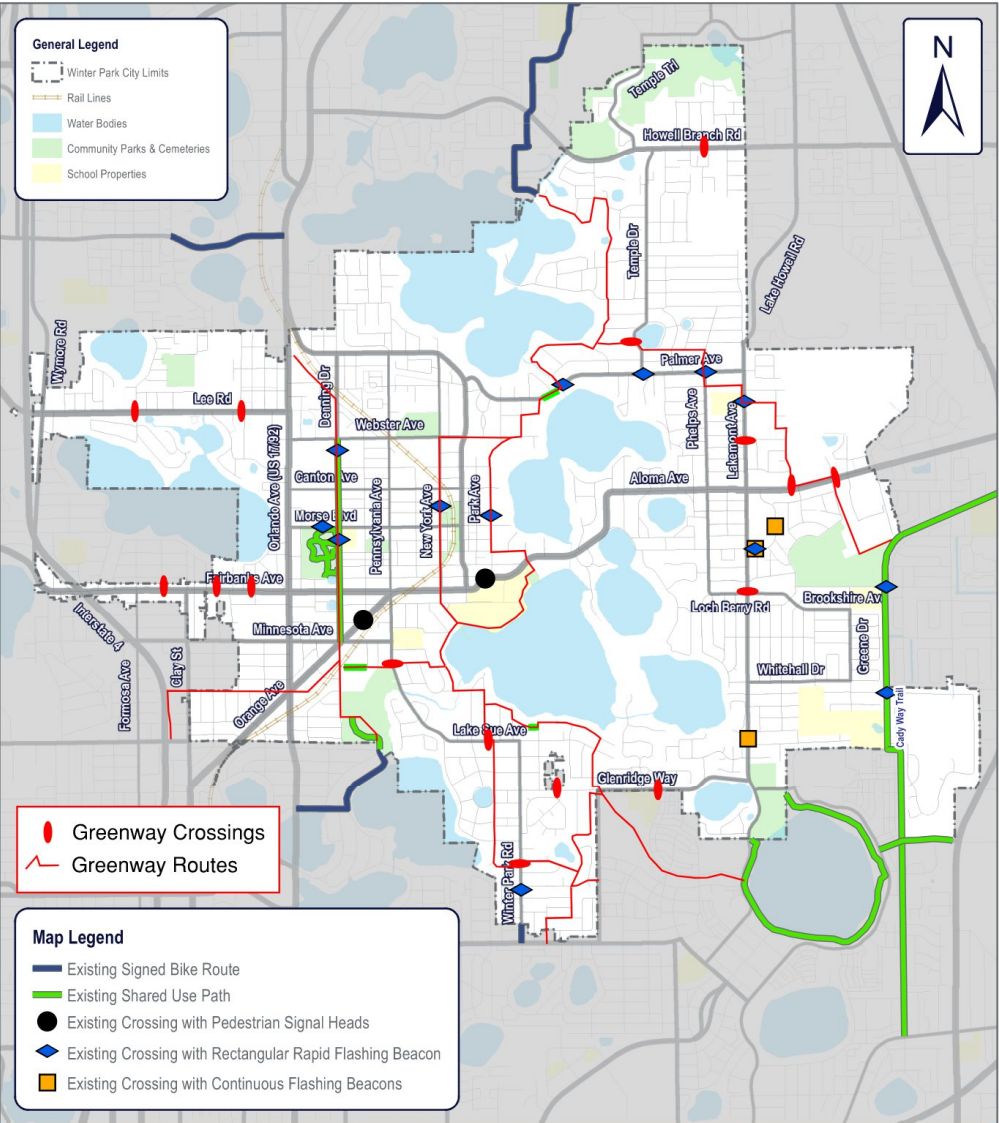
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Greenways – Brick Streets

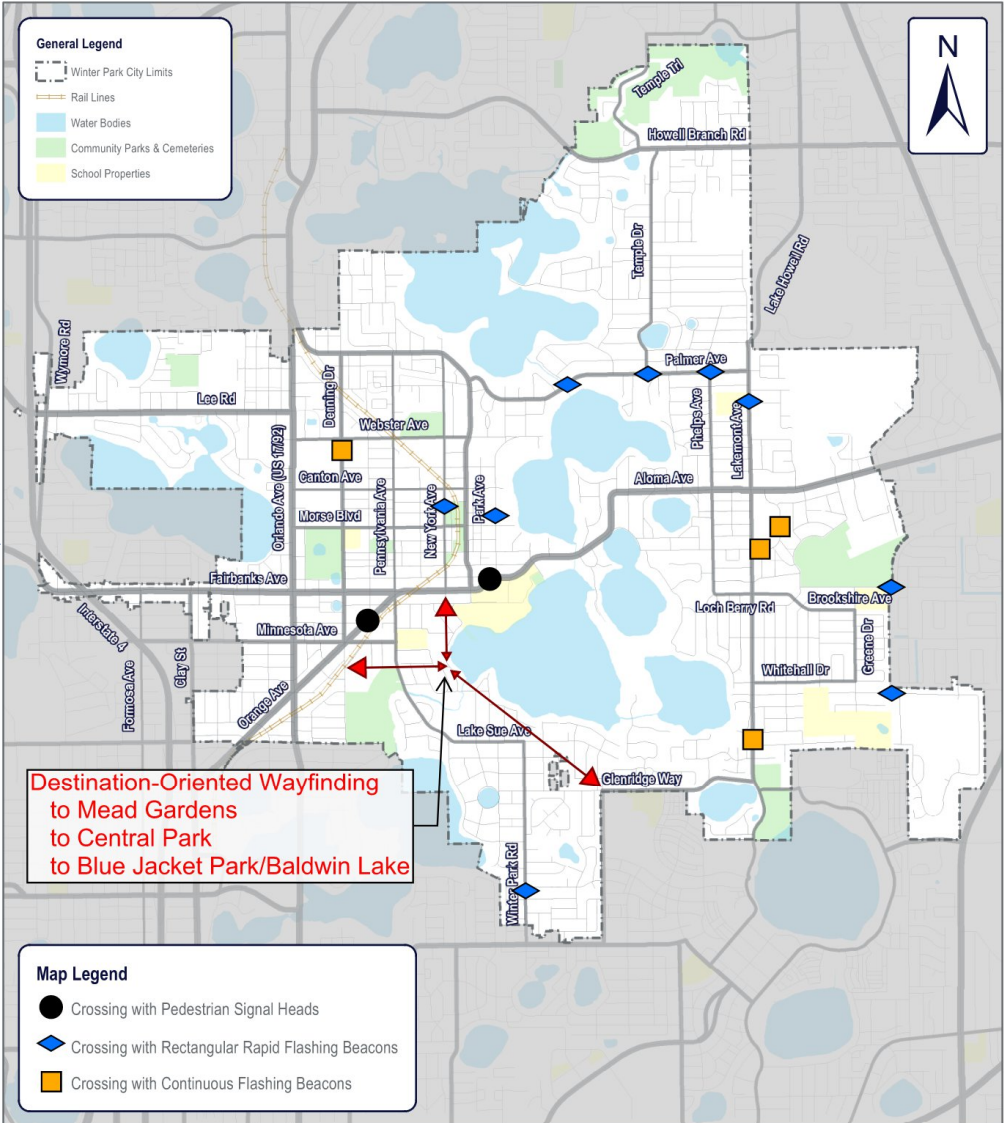
Create level walk/bike area along curb

Incorporate during reconstruction





Proposed Greenways Network & Crossings **Greenways Network Concept**



Pedestrian Crossings Inventory **Greenways Wayfinding Concept**

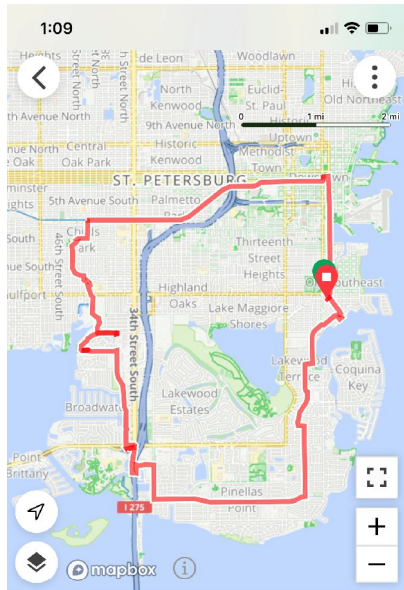
Greenways – Destination-Oriented Wayfinding



| Greenways – Route Identification & Amenities



Greenways – Route Maps, Apps, and Information

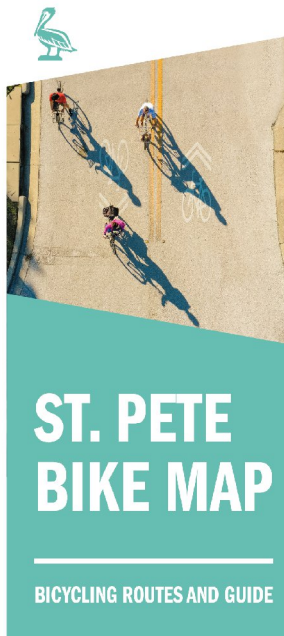
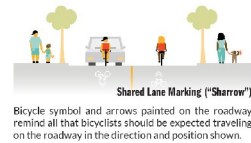


Skyway Trail field work
17.8 mi 241 ft 1:49 hrs
Ride departed at Mar 28, 2022 at 9:06 AM by Lucas Cruse



Share Save Plan

BICYCLE ROUTE TYPES

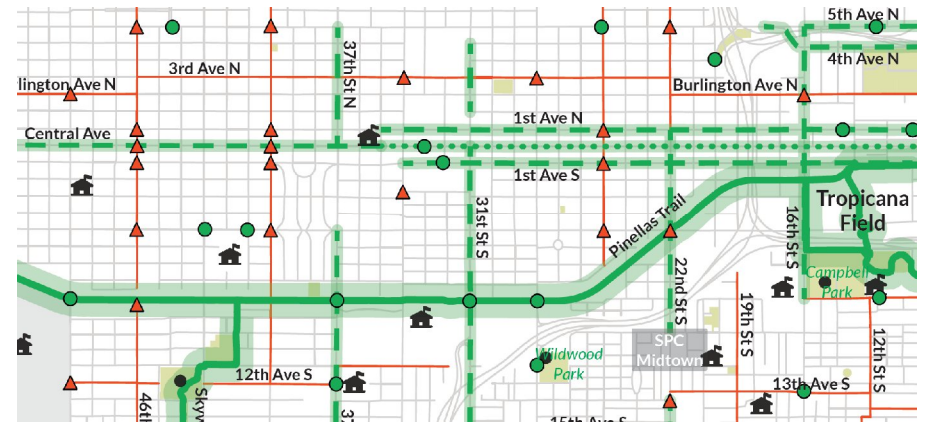


RULES OF THE ROAD

Bicyclists are considered vehicles and must follow the same rules of the road as all other vehicles, which includes riding on the right hand side in the direction of traffic and following all traffic signs and signals.

Bicyclists are legally allowed to ride in the center of traffic lanes in St. Pete when there is no bike lane.

Bicycles may also be legally operated on any sidewalk in St. Pete, though they must yield to anyone on foot and follow all pedestrian rules and signals.



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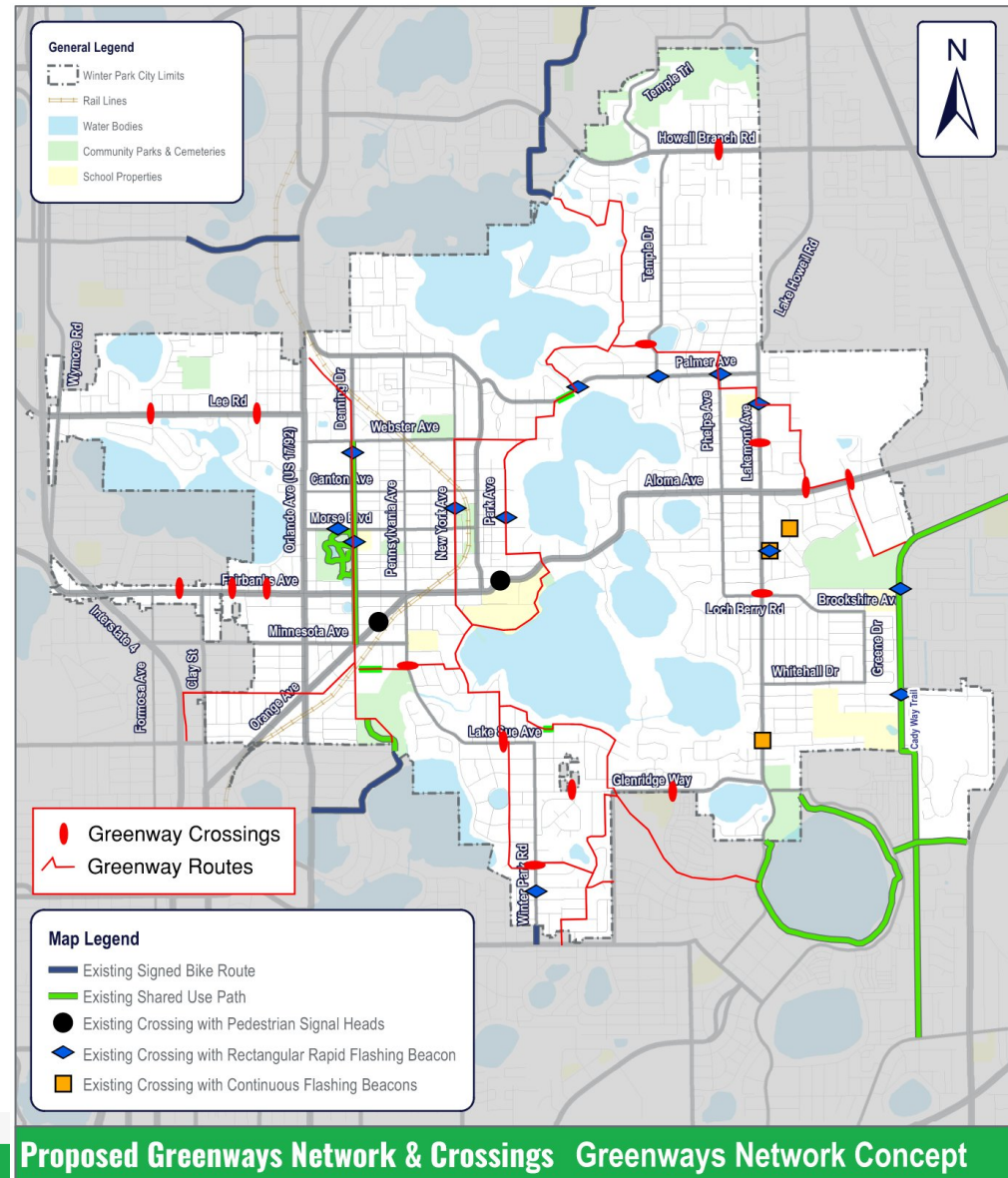
Greenways recap

Safe crossings

Connect key destinations

Destination-oriented wayfinding

Route identification & amenities



Technology

Pedestrian Safety & Accessibility

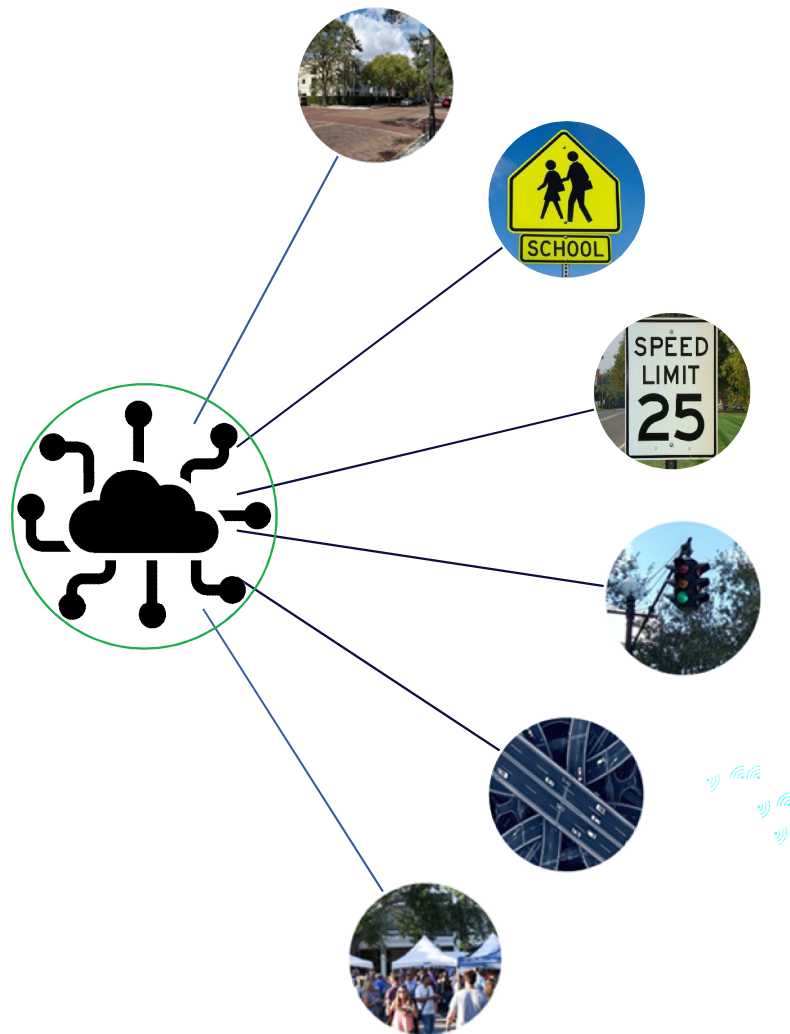
School Zones

Speed Management & Safety

Traffic Signals

Connected & Automated Vehicle Readiness

Parking & Events Management



Technology – Pedestrian Improvements

- 🚧 Accessible Pedestrian Signals (APS)
- 🚧 Leading Pedestrian Intervals (LPI)
- 🚧 Pedestrian scramble phasing
- 🚧 Automated pedestrian detection



Technology – Pedestrian Improvements

Accessible Pedestrian Signals (APS)

Leading Pedestrian Intervals (LPI)

Pedestrian scramble phasing

Automated pedestrian detection



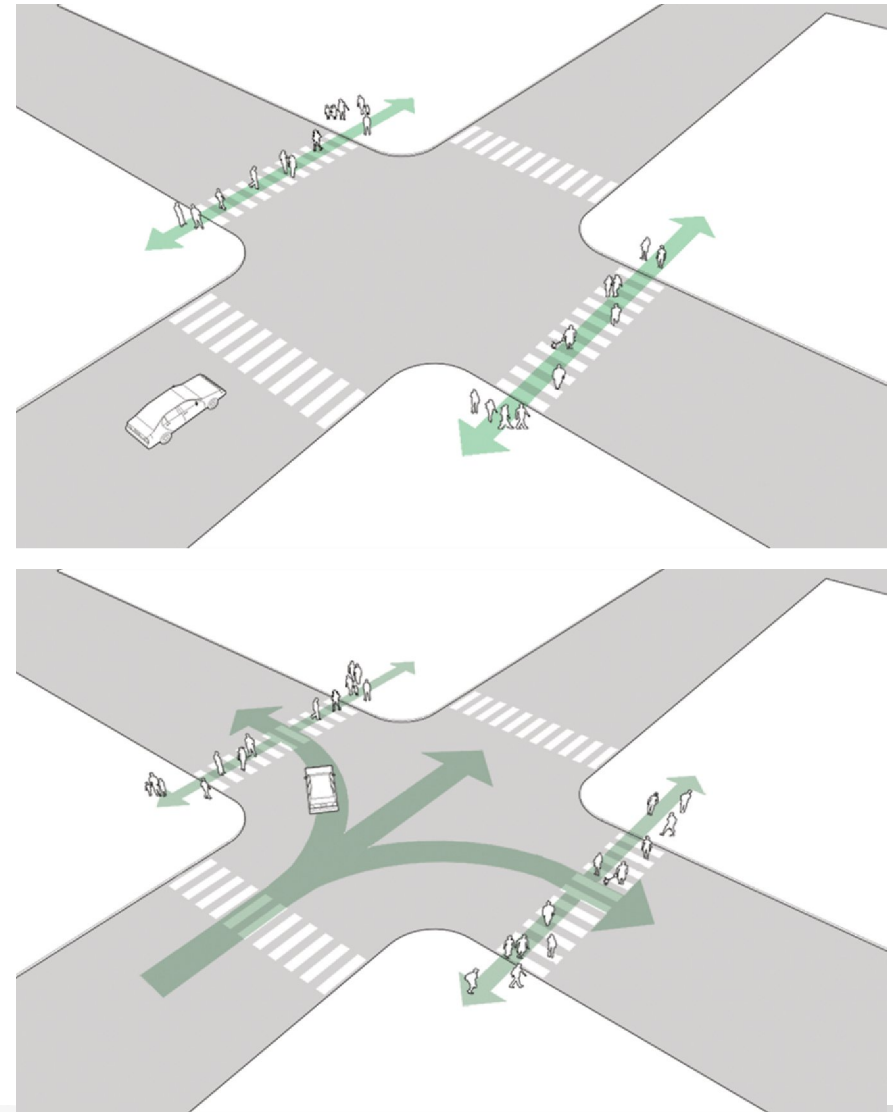
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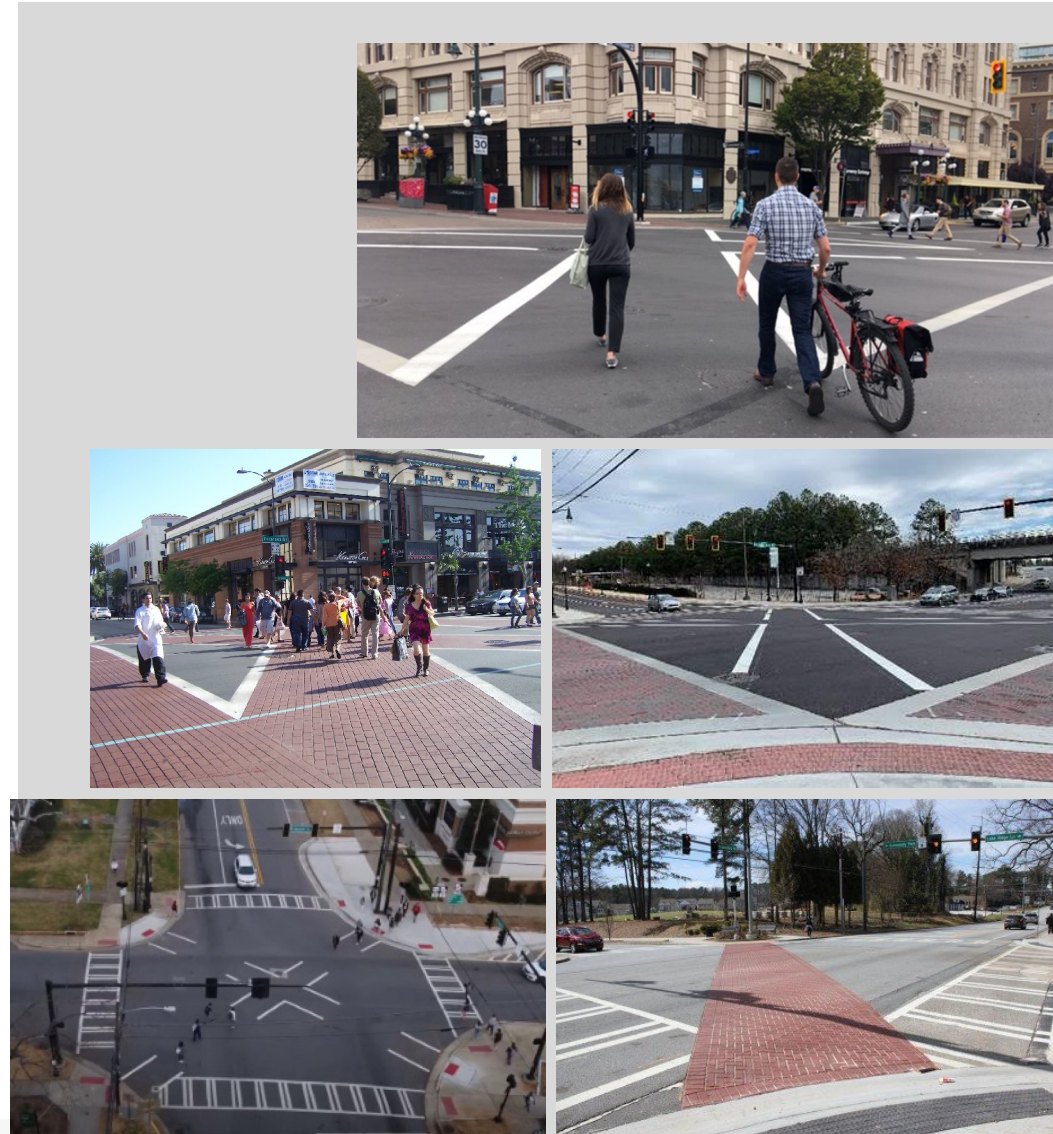
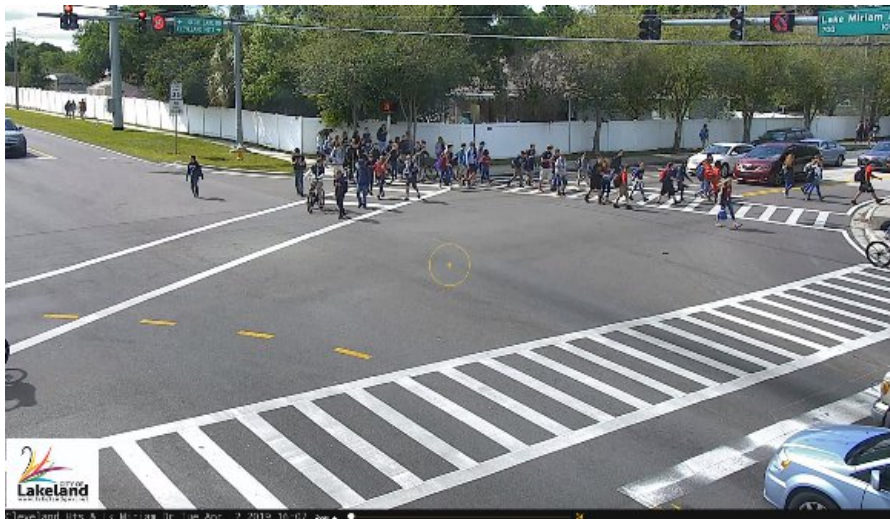
Technology – Pedestrian Improvements

Accessible Pedestrian Signals (APS)

Leading Pedestrian Intervals (LPI)

Pedestrian scramble phasing

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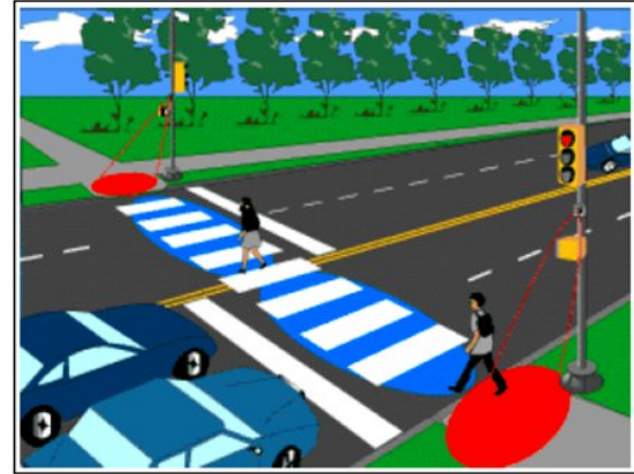
Technology – Pedestrian Improvements

Accessible Pedestrian Signals (APS)

Leading Pedestrian Intervals (LPI)

Pedestrian scramble phasing

Automated pedestrian detection



Technology - School Zone Safety



Install speed feedback signs

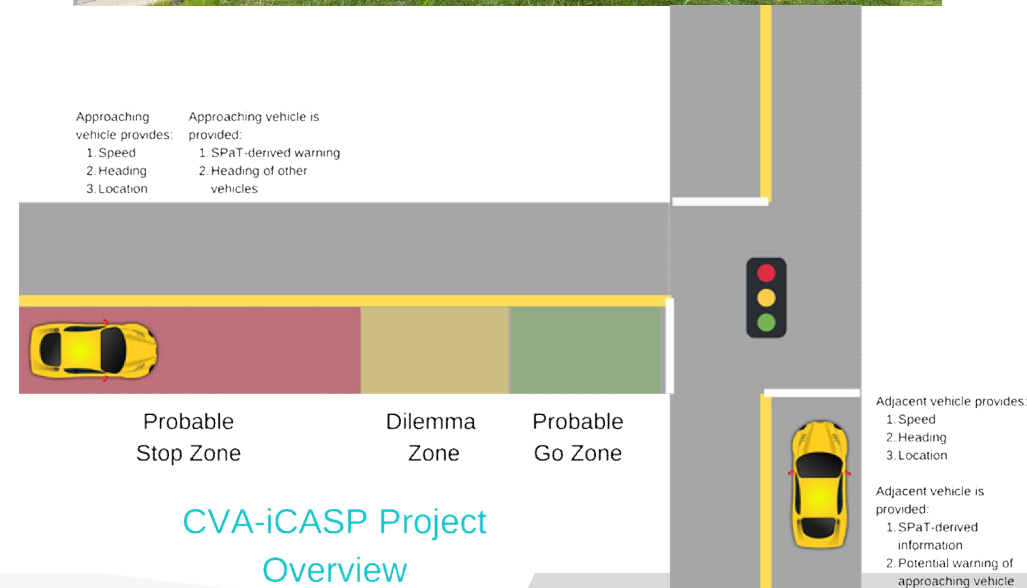
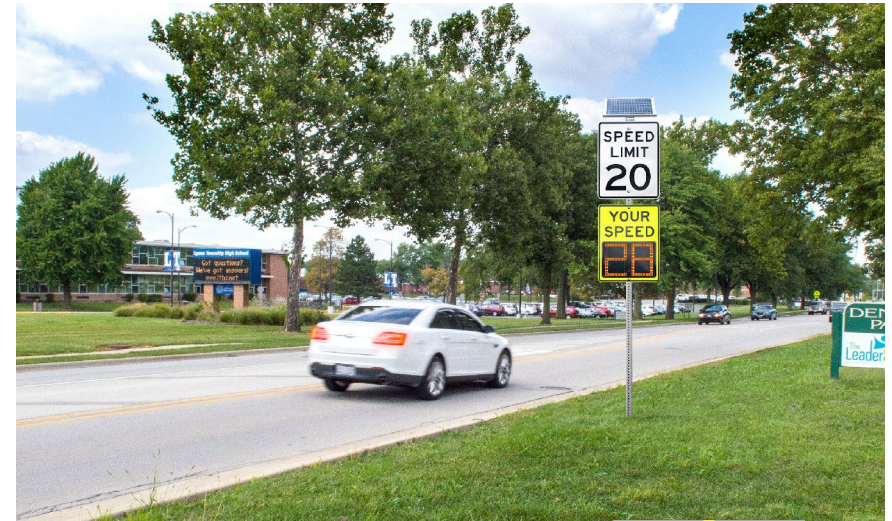


Work with FDOT District 5 to implement new school zone technologies currently under review



Speed Management + Safety

- 🚧 Install vehicle speed feedback signs
- 🚧 Install iCASP system at major traffic signals



Signals Inventory



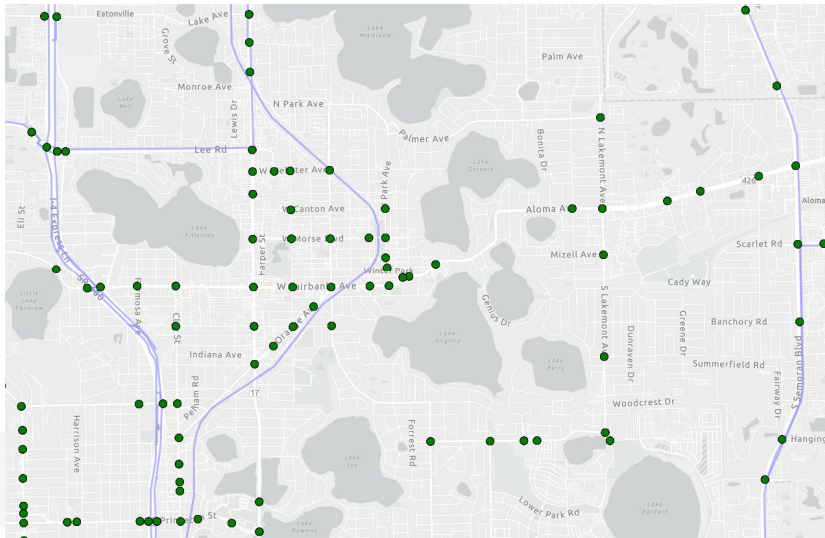
27 City-Owned traffic signals
 + 20 State-Owned traffic signals
 47 traffic signals maintained by City of Winter Park



Cabinets and controllers date from 1980s - 2022



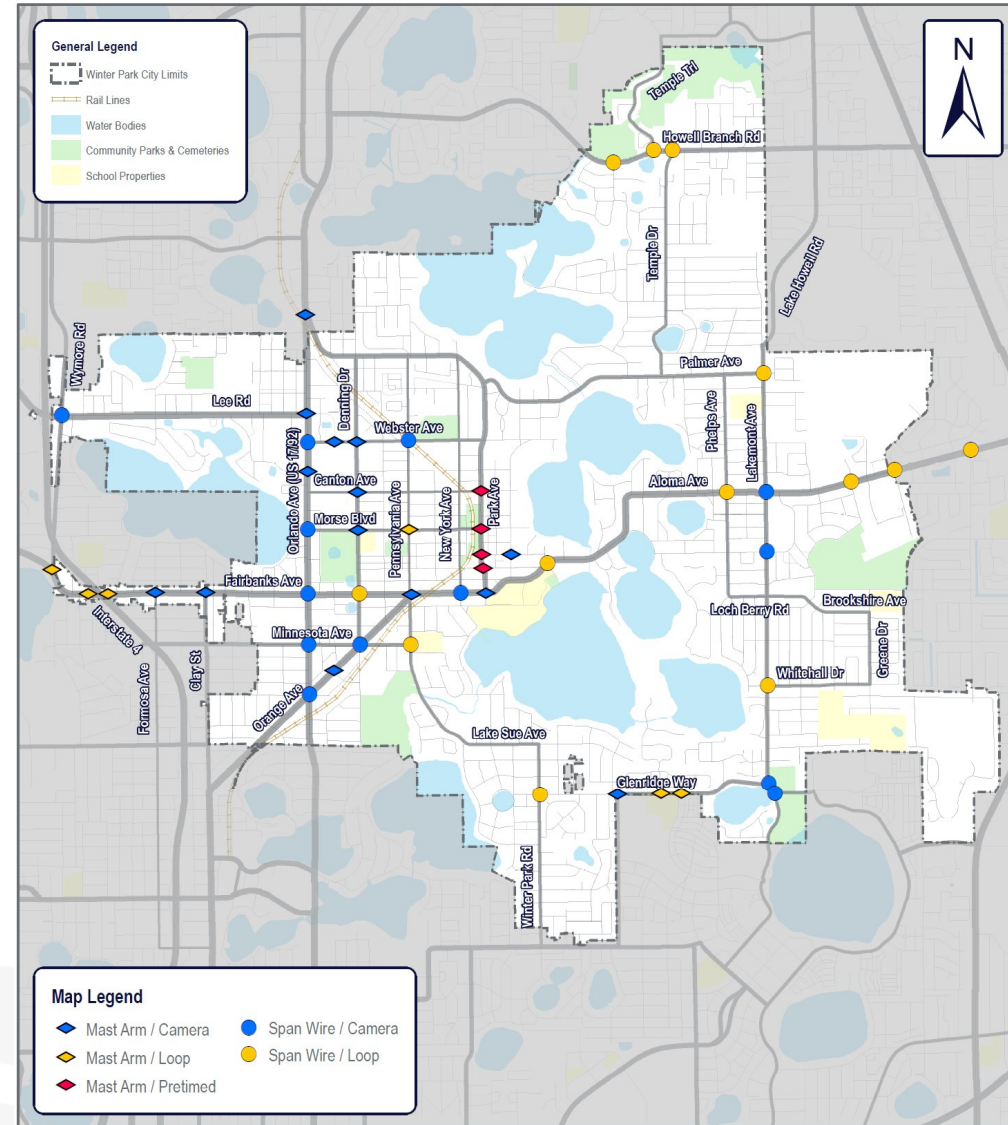
Existing fiber optic lines along: I-4, SunRail tracks, Lee Rd, and Hwy 17/92 north of Lee Rd



Fiber optic line location details provided by FDOT District 5:
<https://noemi.cflsmartroads.com/div/>



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Traffic Signals Inventory

Traffic Signals

- 🚧 When upgrading, replace outdated controllers & cabinets
- 📄 Develop a Signal Communications Plan (w/ FDOT)
- 🚧 Traffic Management Center



CAV Readiness



Replace signal cabinets

- On-going basis – can include in Communications Master Plan
- Larger cabinets to accommodate future hardware



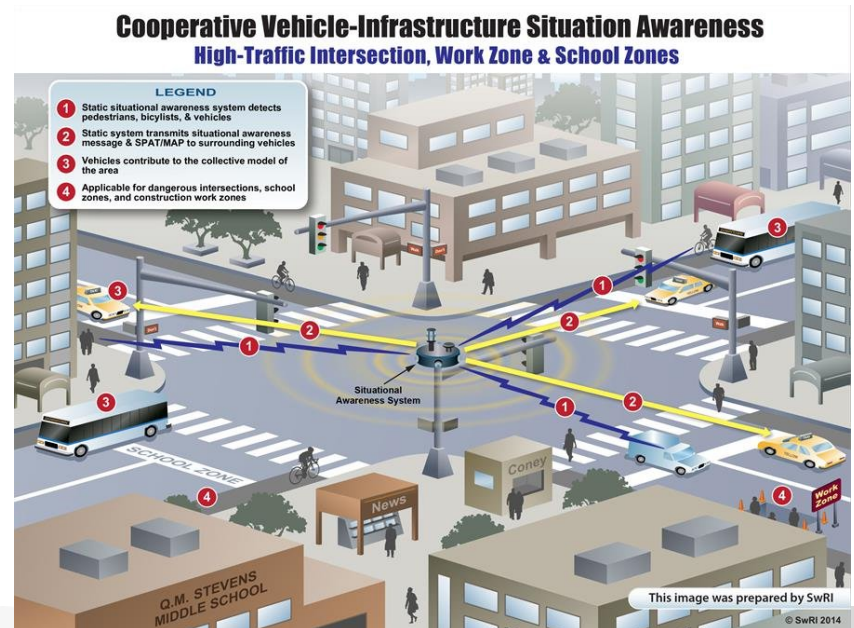
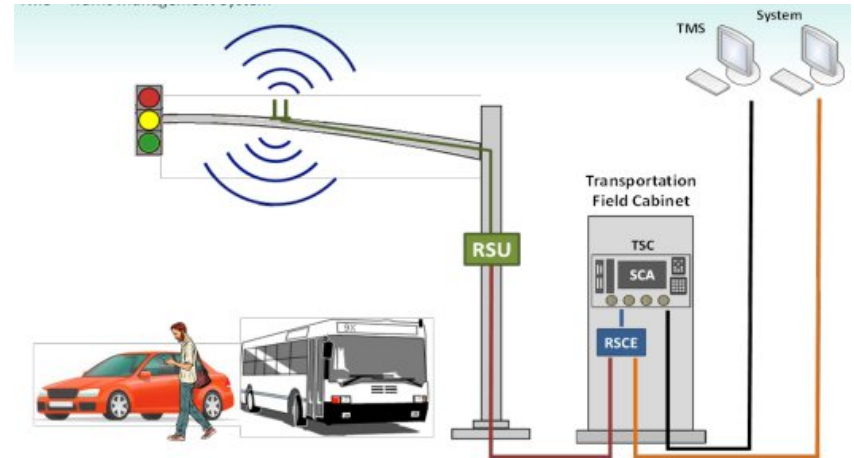
Review existing policies related to CAV technologies



Coordinate with utilities

- Evaluate existing capacity
- Determine power sourcing for EV charging

The technology is advancing rapidly!



Technology – Parking Management

Real-time parking availability monitoring system

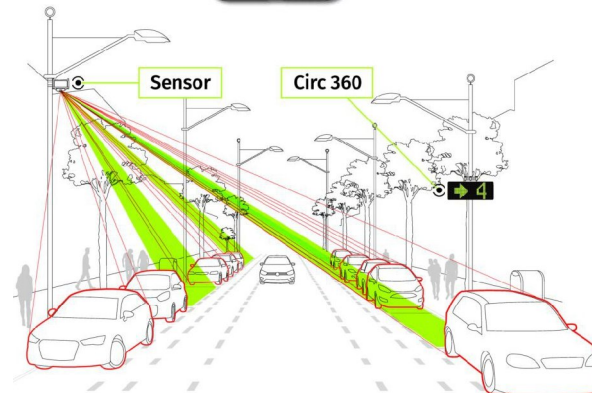
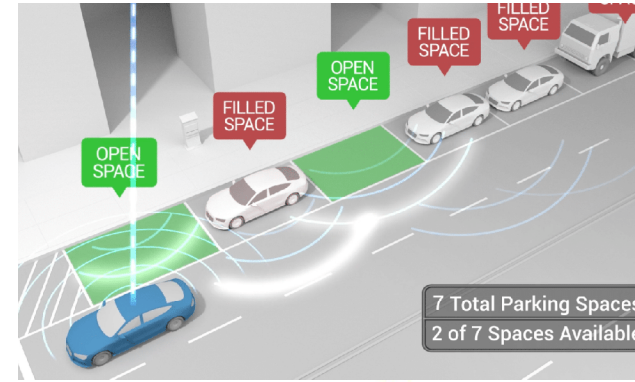
- Parking detectors placed in parking spaces
- Post-mounted sensors to detect multiple space occupancies

Parking Navigation App

- Predict availability of parking – both on- and off-street
- Can incorporate parking restriction information
- Can provide data analytics to City

Implement Universal Valet program

- Drivers leave vehicles at set valet stations
- Valet will return vehicle to any location within the service area



Technology – Event Management

- Variable message signs at gateways for event and parking route guidance
- Install retractable bollards at key locations
- Develop event traffic plan protocols: bypass routes, transit, etc.



Next Steps: Draft Plan

Establish 20-Year Work Program

Project Cost Estimates

Prioritize Projects

Align Funding Sources



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TASKS

5b. Final Plan Document

LEGEND

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